Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

1. (Amended) A method of self-calibrating and testing the vaporized flow of a liquid precursor in a thin film vaporization system comprising the steps of:

providing a thin film vaporization system comprising stored liquid precursors in tanks under pressure connected to a deposition chamber via a manifold which in turn is connected to pipe lines emanating from each tank and coupled to own liquid flow meters (LFMs) and injection valves (IVs);

activating a servo mechanism to pump down said deposition chamber to achieve partial vacuum therein;

opening a downstream throttle valve (TV) for a carrier gas to flow through said manifold to commence self-calibration wherein said carrier gas is a ~~second~~ helium carrier gas;

a first timing to monitor a baseline self-calibrated pressure by a pre-determined TV opening which correlates with the specified baseline pressure in said deposition chamber;

a second timing to allow for the stabilization of carrier gas after throttling said TV to a predetermined opening;

selecting a liquid precursor and its own said respective pipe line with said own LFM and own IV connected to said deposition chamber via said manifold;

setting said own IV to a predetermined opening to start said liquid precursor to flow;

setting said TV opening to a normal liquid precursor flow rate for film deposition;

a third timing to allow for liquid precursor flow to stabilize;

a fourth timing to allow vaporization of said liquid precursor in said deposition chamber;

measuring final pressure in said deposition chamber;

stopping the flow of said precursor fluid; and

pumping down said deposition chamber to continue with said film deposition pending the result of said pressure rise.

2. (Original) The method according to claim 1, wherein said tanks are pressurized by helium gas.

3. (Original) The method according to claim 2, wherein said helium gas is pressurized to between about 20 to 30 pounds per square inch gauge (psig).

4. (Original) The method according to claim 1, wherein said helium gas is kept at room temperature.

5. (Original) The method according to claim 1, wherein said manifold has heater elements.

6. (Original) The method according to claim 5, wherein said heated fixture elements are spaced nominally at 290 mils between about 250 to 350 mils from distribution shower head.

7. (Original) The method according to claim 5, wherein said heated fixture is heated nominally to 400° C between about 350 to 450° C.

8. (Canceled)

9. (Amended) The method according to claim 1, wherein flow of said ~~second~~ helium carrier gas through said manifold is between about 750 to 850 milligrams per minute (mgm).

10. (Original) The method according to claim 1, wherein said first timing is between about 5 to 15 seconds.

11. (Original) The method according to claim 1, wherein said baseline self-calibrated pressure is between about 2 to 4 torr.

12. (Original) The method according to claim 1, wherein said second timing is between about 4 to 6 seconds.

13. (Original) The method according to claim 1, wherein said liquid precursor is tetraethylorthosilicate (TEOS).

14. (Original) The method according to claim 1, wherein said liquid precursor is triethylborate (TEB).

15. (Original) The method according to claim 1, wherein said liquid precursor is tri-ethylphosphate (TEPO).

16. (Original) The method according to claim 1, wherein said injection valve (IV) comprises a venturi tube.

17. (Previously Presented) The method according to claim 1, wherein said normal liquid precursor flow rate is between 800 to 1000 milligram per minute (mgm).

18. (Original) The method according to claim 1, wherein said third timing to allow for liquid precursor to stabilize is between about 7 to 9 seconds.

19. (Original) The method according to claim 1, wherein said fourth timing to allow for liquid precursor vaporized flow to be verified is between about 4 to 6 seconds.

20. (Original) The method according to claim 1, wherein said final pressure in said deposition chamber is between about 6.5 and 7.5 torr.

21. (Original) The method according to claim 1, wherein said pumping down said deposition chamber is accomplished within between about 9 to 11 seconds.

22 – 31. (Canceled)